

**Amendments to the Claims:**

Please amend claims 1, 4, 6, 9 and 18. This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A population of primary cultured preadipocytes, wherein the preadipocytes are isolated and established from adipose tissue and stably maintain a foreign DNA encoding a protein that is secreted outside of a cell, and wherein the DNA is operably linked to a promoter sequence, wherein the population of primary cultured adipocytes express the protein encoded by the foreign DNA for about one year *in vivo* when transplanted in a recipient host.

2. (Previously Presented) The preadipocyte population of claim 1, wherein the DNA is transferred to the cell by a retroviral vector or adeno-associated viral vector.

3. (Canceled)

4. (Currently Amended) The preadipocyte population of claim 1, which is used to release the protein into the blood flow of said host.

5. (Previously Presented) The preadipocyte population of claim 1, wherein the protein is insulin or glucagon-like peptide 1 (GLP-1).

6. (Currently Amended) A method of producing a population of primary cultured preadipocytes, wherein the method comprises the steps of:

- (1) isolating cells from adipose tissue and establishing a primary culture of preadipocytes; and
- (2) transferring into the preadipocytes a foreign DNA operably linked to a promoter sequence and encoding a protein that is secreted outside of the cell and then stably

maintaining the foreign DNA in the genome of the preadipocytes, wherein the population of primary cultured adipocytes express the protein encoded by the foreign DNA for about one year *in vivo* when transplanted in a recipient host.

7. (Original) The method of claim 6, wherein the foreign gene is transferred by a retroviral vector or adeno-associated viral vector.

8. (Previously Presented) A population of primary cultured preadipocytes, which is produced by the method of claim 6.

9. (Currently Amended) An implant composition for gene therapy, wherein the composition comprises a population of primary cultured preadipocytes, which are isolated and established from adipose tissue and stably maintain in the genome a foreign DNA encoding a protein that is secreted outside of the cell, and a pharmaceutically acceptable carrier, wherein the DNA is operably linked to a promoter sequence, wherein the population of primary cultured adipocytes express the protein encoded by the foreign DNA for about one year *in vivo* when transplanted in a recipient host.

10. (Original) The implant composition of claim 9, which further comprises an extracellular matrix component.

11. (Original) The implant composition of claim 9, which further comprises an angiogenesis factor.

12-16. (Canceled)

17. (Previously Presented) A population of primary cultured preadipocytes, which is produced by the method of claim 7.

18. (Currently Amended) A population of primary cultured preadipocytes, wherein the preadipocytes are isolated and established from adipose tissue and stably maintain a foreign DNA encoding a protein that is secreted outside of a cell, wherein the DNA is operably

linked to a promoter sequence, wherein the population of primary cultured adipocytes express the protein encoded by the foreign DNA for about one year *in vivo* when transplanted in a recipient host, and wherein the population is obtained by ceiling culture.

19. (Previously Presented) The method of claim 6, wherein the primary culture is established in step (1) by ceiling culture.